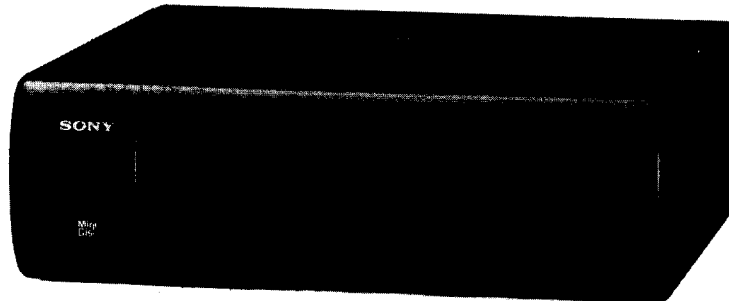


MDX-40

SERVICE MANUAL

US Model
Canadian Model
AEP Model
UK Model
E Model



Model Name Using Similar Mechanism	MDX-400
Tape Transport Mechanism Type	KMS-151A

SPECIFICATIONS

System	Mini disc digital audio system	Mass	Approx. 1.8kg
Frequency response	20 - 20,000 Hz	Power requirement	12V DC car battery (negative ground)
Wow and flutter	Below measurable limit	Supplied accessories	Disc magazine (1) Mounting hardware (1 set) Bus (Unilink) cable (1) RCA pin cord (1)
Signal-to-noise ratio	90 dB		
Outputs	Bus (Unilink) control output (8 PIN) Analog audio output (RCA PIN)		
Current drain	800 mA (MD playback) 800 mA (during loading or ejecting a disc)		
Dimensions	Approx. 190 × 63.5 × 180 mm (w/h/d) not incl. projecting parts and controls		

- Design and specifications subject to change without notice.

US and foreign patents licensed from Dolby
Laboratories Licensing Corporation.



MINIDISC CHANGER
SONY®

Features

- Sony Bus (Unilink) system compatible mobile MD changer.
- Compact and space-saving design for horizontal installation.
- 8 fs digital filter for high quality sound.
- 1 bit D/A converter.



CAUTION

Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.


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SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK  OR DOTTED LINE WITH MARK  ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

ATTENTION AU COMPOSANT AYANT RAPPORT À LA SÉCURITÉ!

LES COMPOSANTS IDENTIFIÉS PAR UNE MARQUE  SUR LES DIAGRAMMES SCHÉMATIQUES ET LA LISTE DES PIÈCES SONT CRITIQUES POUR LA SÉCURITÉ DE FONCTIONNEMENT. NE REMPLACER CES COMPOSANTS QUE PAR DES PIÈCES SONY DONT LES NUMÉROS SONT DONNÉS DANS CE MANUEL OU DANS LES SUPPLÉMENTS PUBLIÉS PAR SONY.

SECTION 1 GENERAL

Listening to MiniDisc Play

Check the type of the currently used main unit.

Main Unit with MiniDisc Button (except MDX-U1, MDX-100, MDX-400RDS)

Press the MD button on the main unit.

MD play starts.

Even if the main unit has the custom file function, you cannot put titles onto MDs.

Main Unit without MiniDisc Button or unit MDX-U1, MDX-100, MDX-400RDS

Press the CD button on the main unit. "CD" is displayed by the main unit, and MD play starts.

Since the unit is operated in the same way as when playing CDs, refer to "Listening to CD Play" in the Operating Instructions manual of the main unit for details.

The MiniDisc players MDX-U1 and MDX-100 have an MD button, but the MDX-40 is operated with the CD button.

When using a main unit with custom file function, or the unit MDX-U1 or MDX-100 together with a CD changer which has the custom file function

In this case, putting titles onto MDs is possible. After entering the name edit mode, the first eight characters of the disc title stored on the MD will be displayed, and you can change them as desired. Having registered the new disc title, it is also possible to change the settings of the bank function and the DSP custom file function.

Notes

- Since the new disc title is stored in the memory of the CD changer with custom file function, the title registered on the MD will not change.
- If the contents of the MD is changed by adding tracks etc., the customized title will become invalid.

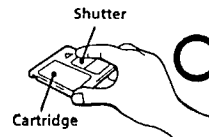
Playing in Other Modes

The MDs can be played in all modes available on the currently used main unit, such as intro scan function, repeat function, shuffle function etc. For details, refer to "Playing in Other Modes" in the Operations Instructions manual of the main unit.

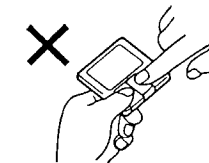
Even when using the MDX-U1, MDX-100, or MDX-400RDS, or a main unit with custom file function but without MD button, all functions can be enjoyed in the same way as if a CD changer were connected.

Notes on MiniDiscs

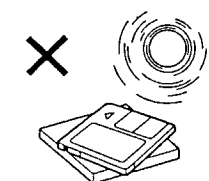
Since a MiniDisc itself is housed in a cartridge, free from accidental contact with your fingers and dust etc., it can withstand a certain degree of rough handling. However, dirt or dust on the surface of the cartridge or a warped cartridge may cause a malfunction of the unit. To enjoy optimum sound quality, observe the following.



Never touch the surface of the MiniDisc itself by deliberately opening the shutter on the cartridge



Do not expose the MiniDisc to direct sunlight or heat sources such as hot air-ducts. Do not leave it in a car parked in the direct sunlight where there can be a considerable rise in temperature. Make sure that it is not left on a dashboard or a rear tray of a car etc. where the temperature can also be excessive.



Cleaning

Wipe the surface of the MiniDisc cartridge from time to time with a soft dry cloth.

Moisture condensation

On a rainy day or in a very damp area, moisture may condense on the lenses inside the unit. Should this occur, the unit will not operate properly. In this case, remove the MiniDisc and wait for about an hour until the moisture evaporates.

This section is extracted from instruction manual.

Preparations

1

Notes

- To avoid malfunction, do not apply excessive force onto the disc magazine, and do not touch its interior.
- Do not insert MiniDiscs with the label facing downwards.
- Before inserting MiniDiscs into the magazine, make sure their shutters are closed.

To remove the discs
Pull into the reverse direction.

2

Note
When the front panel is open, do not place items on it or do not apply strong force onto it.

3

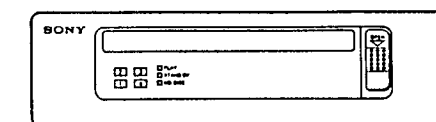
To remove the disc magazine

To change only one MiniDisc
Press the EJECT button. When the magazine has been ejected, you can replace the disc which is in location "1" of the magazine.

4 Close the front panel.
Play does not start with the front panel open.

Disc Indicators

By displaying numbers in two different colors, the disc indicator shows the state of the MDs.



Disc indicator	State of discs
Green number	The MD in the indicated magazine compartment is being played.
Amber numbers	The indicated magazine compartments contain MDs.

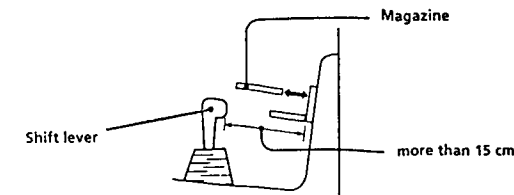
- After inserting the disc magazine, it takes some time till all discs are loaded and the indicator lights up correctly.
- If a number does not light up, there is no MD in the corresponding magazine compartment.

Precautions

- Avoid installing the unit in a place :
 - subject to temperatures exceeding 55 °C (such as in a car parked in direct sunlight).
 - subject to direct sunlight.
 - near heat sources (such as heaters)
 - exposed to rain or moisture.
 - exposed to excessive dust or dirt.
 - subject to excessive vibration.
- Choose the mounting location carefully, observing the following :
 - The fuel tank should not be damaged by the tapping screws.
 - There should be no wire harnesses or pipes under the place where you are going to install the unit.
 - The spare tire, tools or other equipment in or under the trunk should not be interfered with or damaged by the screws or the unit itself.
- To be able to easily insert and eject the magazine, there must be a distance of at least 15 cm between the magazine slot of the unit and the shift lever. Choose the installation location so that the unit does not interfere with gear shifting or other driving operations.
- Use only the supplied mounting hardware for a safe and secure installation.

Mounting angle adjustment

Install the main unit at an angle between - 20° and 30°.

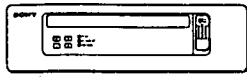
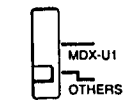


Setting the MDX-U1/OTHERS Switch

When using the MDX-U1/400RDS models as main unit :
Make sure to set the MDX-U1/OTHERS switch on the bottom of the changer to the MDX-U1 position. Failure to do so will result in changer malfunction.

When using other models than MDX-U1/400RDS as main unit :
Make sure to set the MDX-U1/OTHERS switch on the bottom of the changer to the OTHERS position.

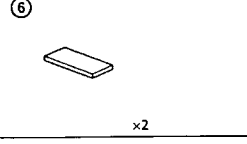
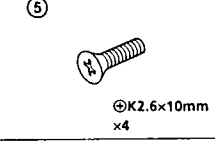
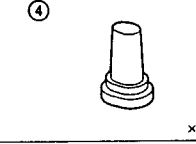
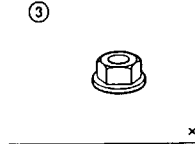
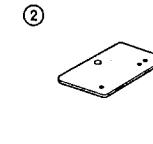
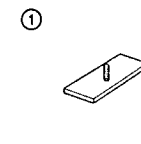
Use a jeweler's screwdriver or a similar tool to set the switch.



Installation

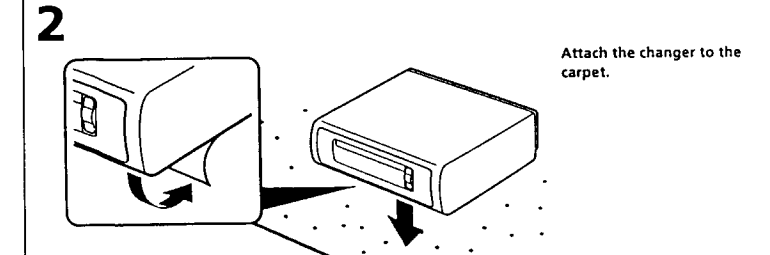
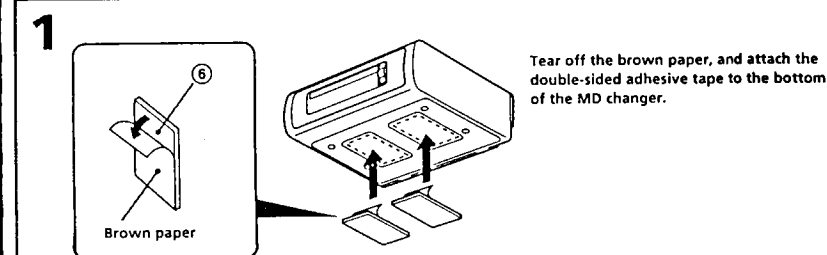
Supplied Mounting Hardware

The numbers in the list are keyed to those in the instructions.



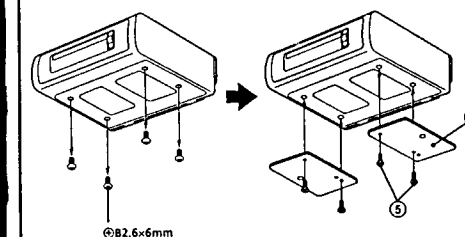
How to Install the Unit under the Seat

When using the double-sided adhesive tapes

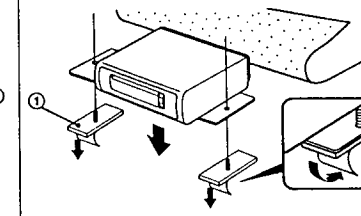


When using the floor mounting brackets

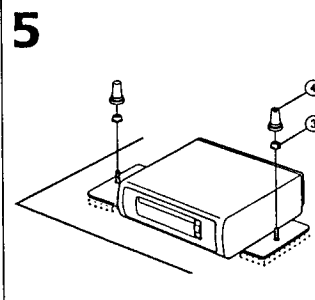
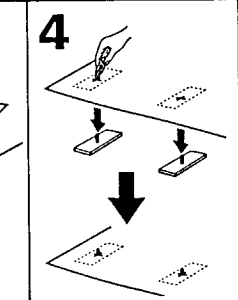
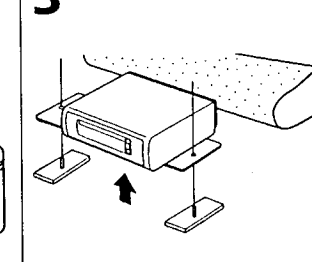
1 Remove the factory-installed screws, and install ② with ⑤.



2 Place the changer onto ①, and after deciding the installing position, stick ① to the floor.



3 Remove the MD changer.

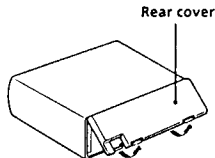


Installation

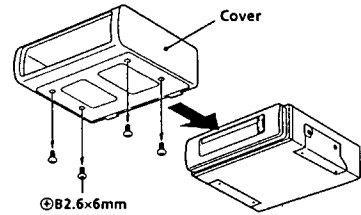
Mounting the Indash Unit in a Japanese Car

You may not be able to install this unit in some Japanese car models. In such a case, consult your nearest Sony dealer. Before installing the unit, remove its cover.

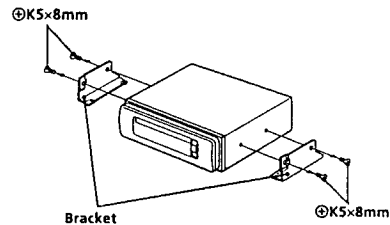
1 Remove the rear cover.



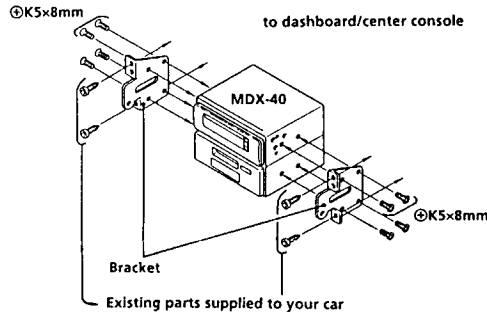
2 Remove the cover from the unit.



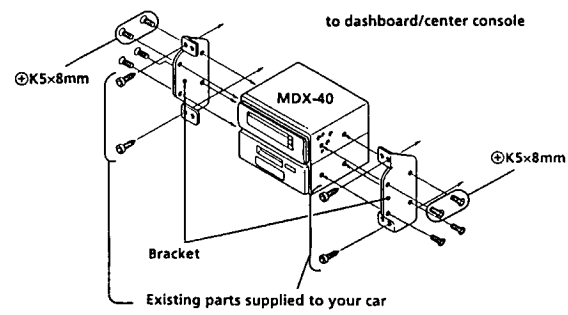
3 Remove the brackets from the unit.



4 TOYOTA



NISSAN



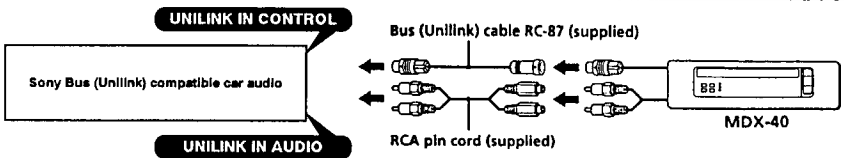
Note
If the unit is installed in the lower deck and interferes with gear shifting, install it in the upper deck.

Mounting the Indash Unit into a Non-Japanese Car

Use the separately available Mounting Kit GMD-340.

Connections

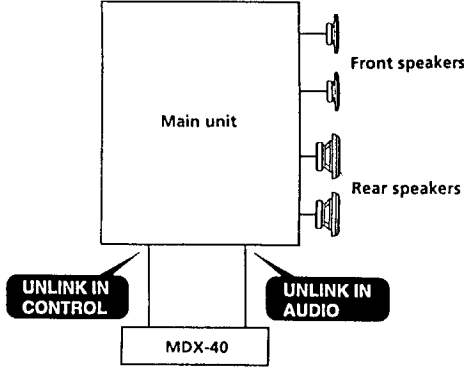
The MD changer is connected in the same way as a CD changer. For details, refer to the respective Installation/Connections manuals.



Note
When you connect this MD changer to a main unit without MD button but with custom file function (or to the MDX-U1, MDX-100, or MDX-400RDS) and to several CD changers, putting titles onto MDs is possible if at least one of the CD changers has the custom file function.

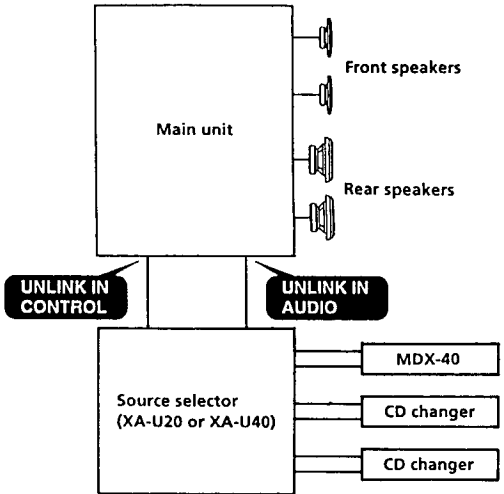
Connection Diagram

Example 1



Note
When using the MDX-40 together with the XDP-US0D, connect the BUS (Unilink) cable from the MDX-40 to UNILINK IN CONTROL 1 on the XDP-US0D. Do not connect to UNILINK IN CONTROL 2. Failure to do so may result in distorted sound.

Example 2

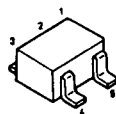


Note
Connecting to several CD changers requires the separately available source selector XA-U20 or XA-U40.

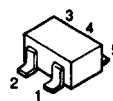
SECTION 2 DIAGRAMS

• SEMICONDUCTOR LEAD LAYOUTS

TC4S66F

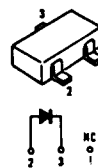


XN1A312-TX

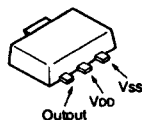


(1) Tr1 OUT
(2) Tr2 OUT
(3) Tr2 IN
(4) GND
(5) Tr1 IN

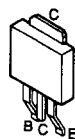
RB411D



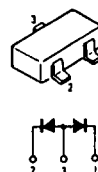
S-8054HN-C8



2SB1203FAS



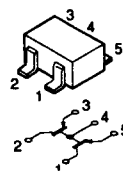
DAP202K



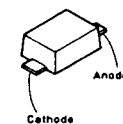
DTC144EK
DTC314TKH04
DTD113EK
2SC1623-L5L6



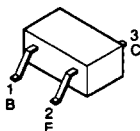
FMY1



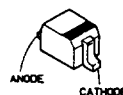
MA8091-M
MA8110-L-TX



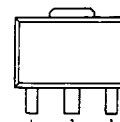
UN5113
UN5211



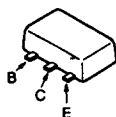
DTZ5.6B
MA8062-M
1SS352



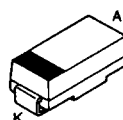
RB110C



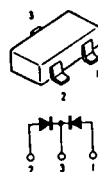
2SB1115A
2SD1622-S
2SD1760F5-R



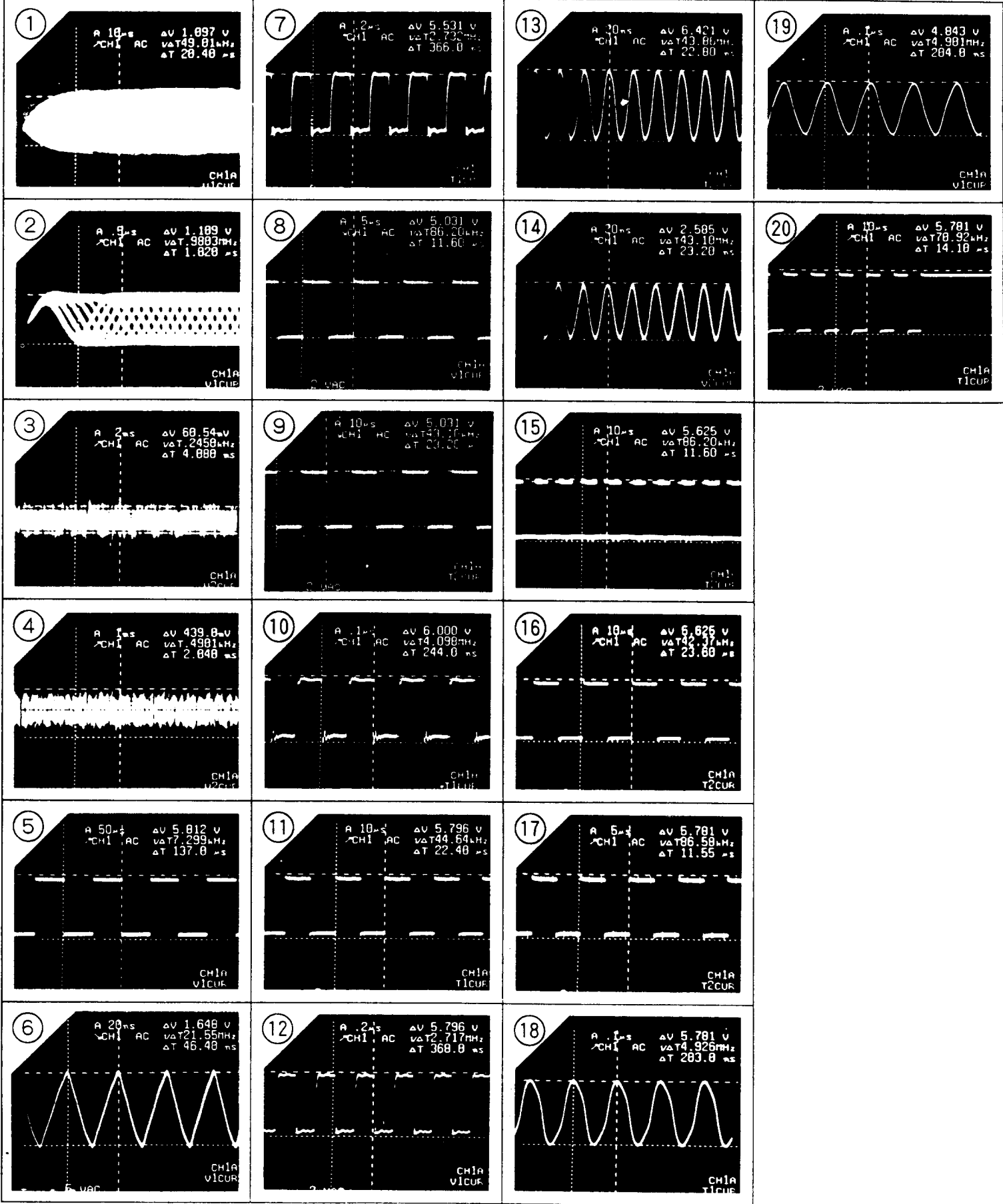
EC10DS2



DAN202K



• WAVEFORMS – ROTARY/MAIN SECTION –



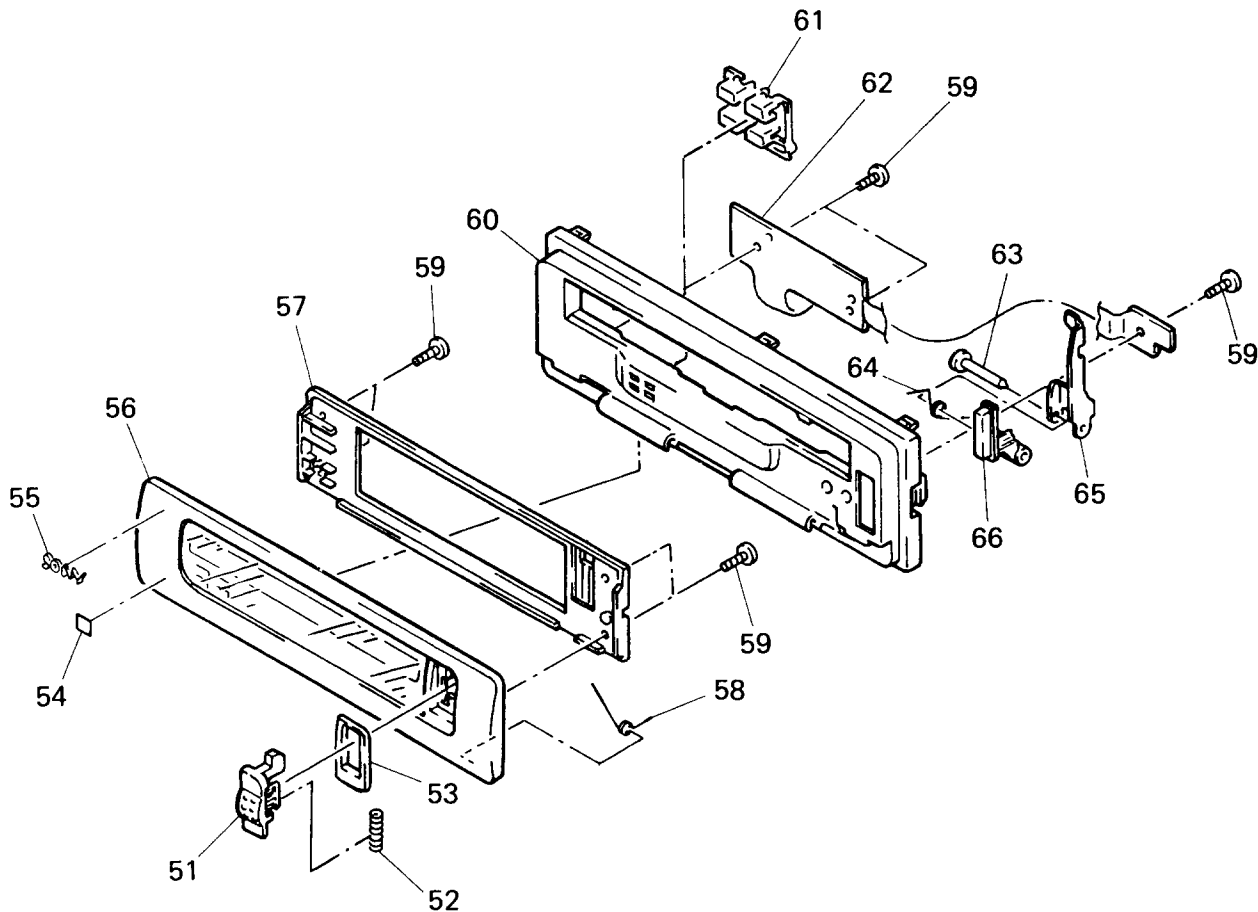
3-1. HIDEAWAY SECTION

This exploded view diagram illustrates the assembly of the 3-1. HIDEAWAY SECTION. The components are numbered as follows:

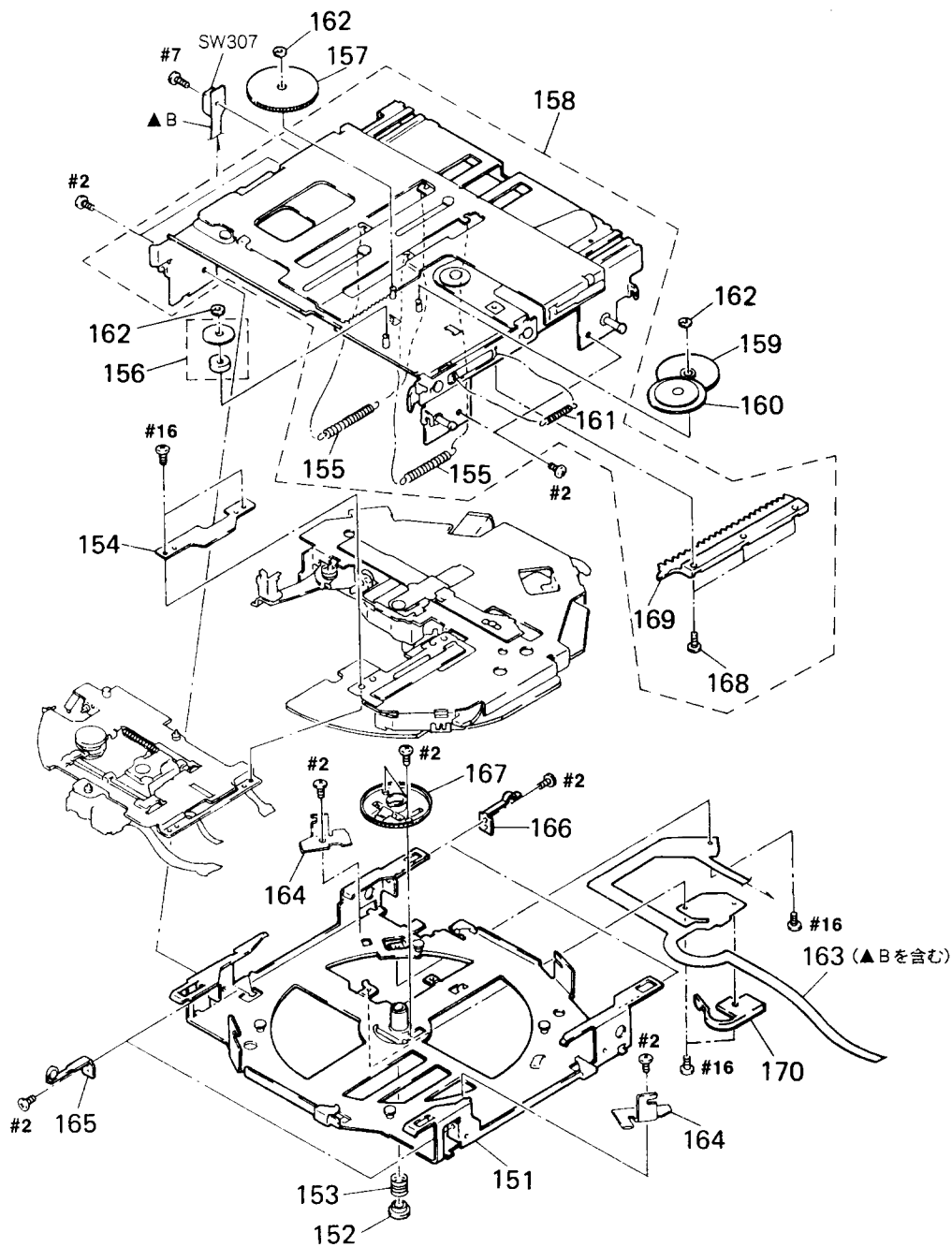
- 1**: Main base unit.
- 2**: Small screws.
- 3**: Screws for the front panel.
- 4**: Screws for the side panel.
- 5**: Internal frame or support structure.
- 6**: Small component, possibly a switch or sensor.
- 7**: Screws for the top panel.
- 8**: Screws for the bottom panel.
- 9**: Internal component, possibly a motor or actuator.
- 10**: Small component, possibly a switch or sensor.
- 11**: Internal component, possibly a motor or actuator.
- 12**: Screws for the side panel.
- 13**: Front panel.
- 14**: Top panel.
- 15**: Side panel.
- 16**: Small component, possibly a switch or sensor.
- 17**: Side panel.

The diagram shows the assembly sequence, with components being added to the main base unit (1) in a specific order. The front panel (13) is attached to the base unit (1) using screws (3). The side panel (15) is attached to the base unit (1) using screws (4). The top panel (14) is attached to the base unit (1) using screws (7). The bottom panel (8) is attached to the base unit (1) using screws (8). The side panel (17) is attached to the base unit (1) using screws (12). The internal components (9, 10, 11) are attached to the base unit (1) using screws (2, 3, 4). The small components (6, 16) are attached to the base unit (1) using screws (2, 3, 4). The screws (2, 3, 4) are shown in the diagram as being inserted into the base unit (1) to secure the various panels and components.

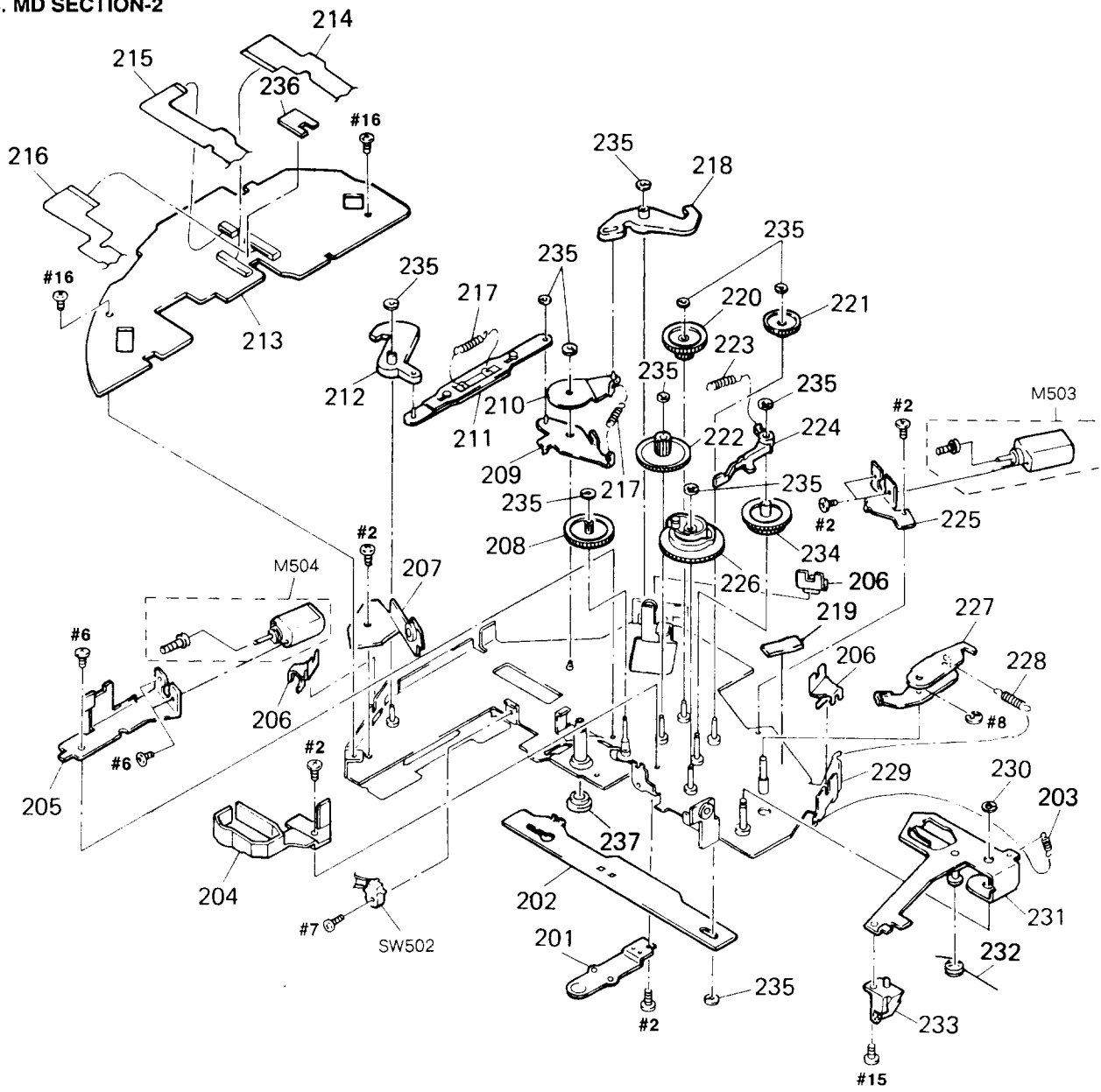
3-2. FRONT PANEL SECTION



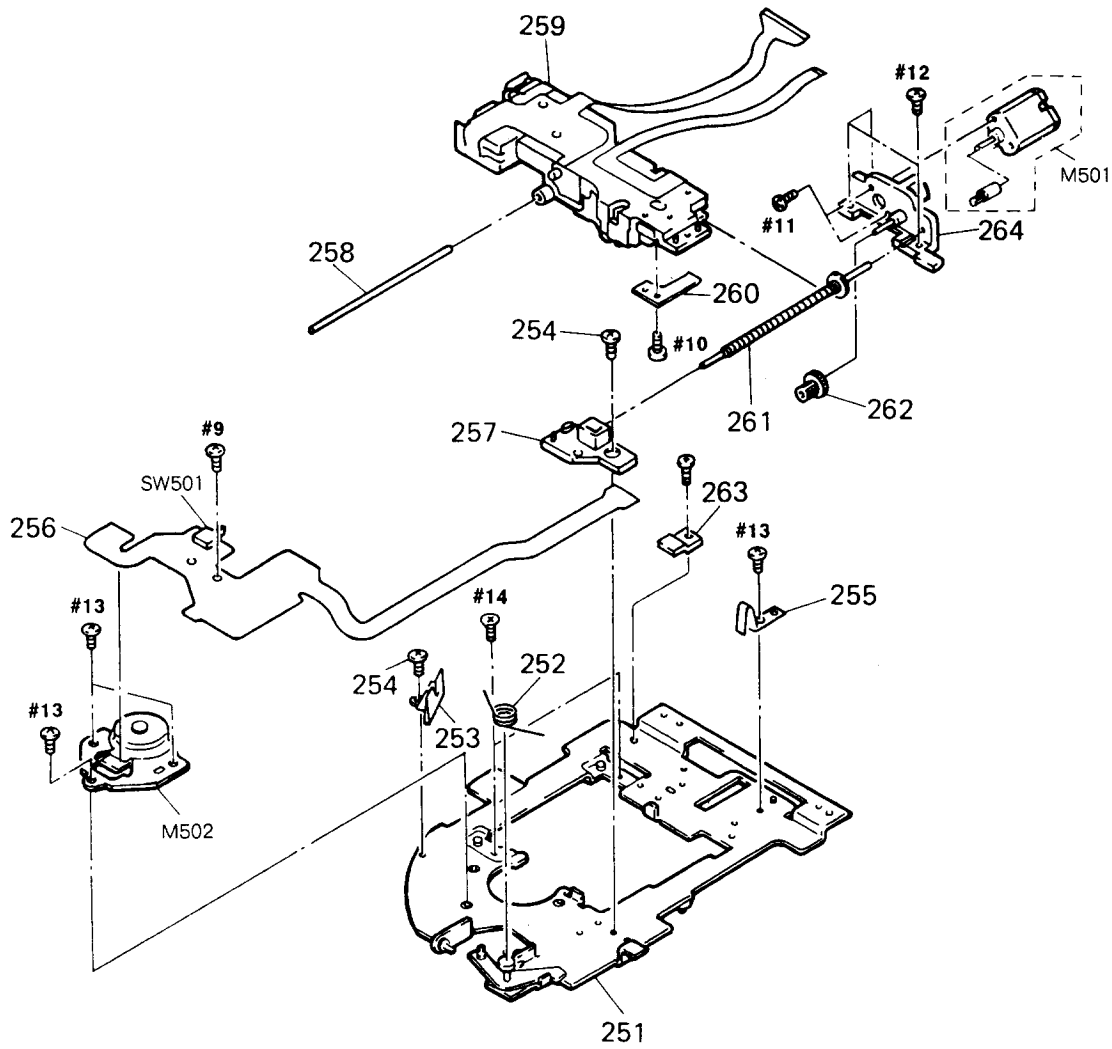
3-3. MD SECTION-1



3-4. MD SECTION-2



3-5. MD SECTION-3



MOUNTING HARDWARE

501



x2

502



x2

503



x2

504



x2

505



⊕K2.6×10mm

x4

506



x2